Technology Education Concentration

The Master of Education with a concentration in Technology Education program is based on engineering concepts. Technology Education stresses design, critical thinking skills and problem-solving abilities. The Technology Education program is based on the applied science, engineering and math standards. VCSU has been a leader in the nation preparing technological literate technology education teachers with standards based curriculum.

The program requires 36 hours of coursework, an action research report, and an oral defense of a comprehensive portfolio. The curriculum is structured around a set of core requirements that provide a broad foundation in education, research, and technology.

VCSU has designed this concentration for primary and secondary level educators who are interested in teaching Technology Education. Curriculum in the courses is set up to be consistent with the Standards for Technological Literacy defined by the International Technology and Engineering Educators Association (ITEEA). All coursework is completely online with no required campus visits.

Core Required Courses 12 hours

EDUC 610 Research in Education (3)
EDUC 625 Issues in School, Community, and Family (3)
EDUC 640 Supervision and Assessment of Teachers and Learners (3)
EDUC 657 Exceptionality, Diversity, and Differences (3)

Special Program Requirements 3 hours

TECH 689 Research Application (1)
TECH 698 Capstone (2)
These courses are designed to support the student in completing graduation requirements including a field experience, an action research report, and a comprehensive portfolio.

Students select one of the following Options to complete the concentration in Technology Education:

OPTION 1: SECONDARY STEM EDUCATION

In addition to the core courses and program requirements, students must complete 18 hours of required courses and 3 hours of elective courses.

Required Courses 18 hours

STEM ED 650 Standards-Based Curriculum and Methods (3)
STEM ED 660 Design for Engineering (3)
STEM ED 665 Invention and Innovation (3)
STEM ED 670 Design, Technology and Engineering for Elementary (3)
STEM ED 680 Building Math (3)
OR
STEM ED 682 Engineering the Future (3)
TECH 675 Research and Assessment in Tech Ed (3)

Elective Courses Select 3 hours

EDUC 635 Technology for Learing (3)
TECH 688 Safety and Management in the Tech Lab (3)

OPTION 2: ELEMENTARY STEM EDUCATION

In addition to the core courses and program requirements, students must complete 15 hours of required courses and 6 hours of elective courses.

Required Courses 15 hours

STEM ED 655 STEM Curriculum and Methods, Elementary (3)
STEM ED 670 Design, Technology, and Engineering for Elementary (3)
STEM ED 671 Inquiry Based Thematic Instruction (3)
STEM ED 680 Building Math (3)
TECH 675 Research and Assessment in Tech Ed (3)

Elective Courses Select 6 hours

EDUC 635 Technology for Learning (3)
TECH 665 Invention and Innovation (3)
TECH 688 Safety and Management in the Tech Lab (3)

OPTION 3: CAREER AND TECHNICAL EDUCATION

In addition to the core courses and program requirements, students must complete 15 hours of required courses and 6 hours of elective courses.

Required Courses 15 hours

TECH 651 Curriculum Development in CTE (3)
TECH 652 Instruction Strategies in Training & Occupational Education (3)
TECH 653 Trends & Issues in Occupational Education (3)
TECH 654 Administration and Management in CTE (3)
TECH 675 Research and Assessment in Tech Ed (3)

Elective Courses Select 6

EDUC 635 Technology for Learning (3)
STEM ED 660 Design for Engineering (3)
STEM ED 665 Invention and Innovation (3)
STEM ED 680 Building Math (3)
STEM ED 682 Engineering the Future (3)
TECH 688 Safety and Management in the Tech Lab (3)

Option 1: Secondary STEM Education The secondary STEM option allows individuals to add Technology Education as a new or additional teaching field. Out of state candidates can also receive North Dakota licensure that is transferable to their home state. It ensures that students in the Technology Education program to complete a STEMED Certificate and qualify for the North Dakota endorsement in this area.

Option 2: Elementary STEM Education The elementary STEM option provides curriculum appropriate for elementary education profession-als to enhance teaching and learning in their classrooms with STEM methodology and the application of math and science. It also provides a more direct pathway for the elementary STEM certificate within their program of study.

Option 3: Career and Technical Education The Career and Technical Education option provides an advanced degree option for all Career and Technical Education professionals. This option serves the eight un-dergraduate teacher education fields, the fourteen Trade, Industry, and Technical Education fields for secondary education, and is available to the 34 post-secondary program areas in Trade, Industry, and Technical Education in North Dakota.

Technology Education Contact:

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What Our Students Say:

"Outstanding! Many of the teachers in my building graduated from VCSU and speak highly of their experiences. VCSU has also earned top rankings in reputable magazines."

Lisa Narum
Teacher / Central Cass Middle School

Our Partners

The Boston Museum of Science's National Center for Technological Literacy® (NCTL®) and Valley City State University have completed a Memorandum of Understanding leveraging their strengths to bring STEM Based Curriculum to K-12 schools throughout the United States. The goal is to improve the STEM Teaching Methodologies of K-12 teachers and prepare qualified teachers to address the national short-age of technology educators.

NCATE

The Standard of Excellence
in Teacher Preparation

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